UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10
1200 6TH Avenue
Seattle, Washington 98101

IN THE MATTER OF:	)	
	)	**Docket No.**
United States Department	)	**RCRA-10-2000-0216**
of the Army	)	
	)	**ADMINISTRATIVE COMPLAINT**
Fort Lewis	)	**AND COMPLIANCE ORDER**
Fort Lewis, Washington	)	
	)	
Respondent	)	
	)	

I. JURISDICTION

1.1 This Administrative Complaint and Compliance Order (Complaint) is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency under 42 U.S.C. § 6961(b)(1) by Section 9006 of the Solid Waste Disposal Act, as amended by the Resource Conservation Recovery Act (RCRA), 42 U.S.C. § 6991e, and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits (Consolidated Rules of Practice), 40 C.F.R. Part 22.

This Complaint is also issued pursuant to the Federal Facility Compliance Act of 1992 under 42 U.S.C. §6001(b) which authorizes EPA to take enforcement actions against other Federal agencies in the same manner and under the same circumstances as an action against another person. The authority to issue such complaints has been delegated to the Regional Administrator, Environmental Protection Agency, Region 10, and has been further delegated by the Regional Administrator to the Unit Manager of the Groundwater Protection Unit, EPA Region 10, the Complainant in this action. This administrative action seeks to enforce regulations contained in 40 C.F.R. Part 280 which were promulgated under the authority of Sections 2002, 9002, and 9003 of RCRA, 42 U.S.C. §§ 6912, 6991a, and 6991b.

1.2 EPA granted final approval to the State of Washington to administer a state underground storage tank management program in lieu of the Federal underground storage tank management program established under Subtitle I of RCRA, 42 U.S.C. §§ 6991-6991k, pursuant to Section 9004 of RCRA, 42 U.S.C. § 6991c, and 40 C.F.R. Part 281, Subpart A (as published in 58 Fed. Reg. 47217 (Sept. 8, 1993), and became effective October 8, 1993). The requirements and standards of the State of Washington underground storage tank management program, through this final approval, have become requirements of Subtitle I of RCRA and are, accordingly, independently enforceable by EPA pursuant to its authority under Section 9006 of RCRA, 42 U.S.C. § 6991e. The State of Washington's approved underground storage tank program statute is set forth in Chapter 90.76 of the Revised Code of Washington "RCW" and its implementing regulations are set forth in the Washington Administrative Code and will be cited as "WAC" followed by the applicable section of the regulations.

1.3 In this Complaint the State of Washington's approved underground storage

tank regulations are cited as the factual and legal bases for EPA's Complaint and the analogous provisions of the Federal underground storage tank regulations are cited in a parenthetical. For those violations which started to occur prior to October 8, 1993, EPA enforces the Federal regulations until October 8, 1993, and then EPA enforces the approved State regulations on and after October 8, 1993. The prospective relief sought in the Compliance Order is based on the State of Washington's approved underground storage tank regulations.

1.4 EPA has given the State of Washington prior notice of the issuance of this Complaint in accordance with Section 9006(a) of RCRA, 42 U.S.C. § 6991e(a).

II. PRELIMINARY STATEMENT

2.1 The U.S. Department of Defense, the Department of the Army, is the owner of a facility located near Tacoma in Pierce and Thurston Counties, Washington. This facility is known as Fort Lewis. Fort Lewis is located between Tacoma and Olympia, Washington, on the southeastern shore of Puget Sound and about 35 miles south of the Seattle-Tacoma Airport. Fort Lewis, which is part of the Army's Forces Command, is the home of the I Corps. Operations at Fort Lewis include conducting field exercises, training, maintenance and use of aircraft and other vehicles, and repair/refurbishing of weapons systems.

2.2 Underground storage tanks (USTs) at Fort Lewis serve a number of functions including providing fuel for vehicle use and emergency generators.

2.3 In January 1994, EPA Region 10 conducted a multi-media inspection at Fort Lewis. This inspection included an inspection of UST systems. A number of violations were identified during the inspection. EPA Region 10 informed the Department of the Army of the violations during the inspection exit interview.

2.4 An on-site UST inspection was conducted again at Fort Lewis from September 13 through September 17, 1999. This inspection was conducted by EPA's National Enforcement Investigations Center (NEIC). The Washington Department of Ecology also participated in the inspection. All 62 regulated UST systems at 26 locations on the base were inspected by NEIC.

2.5 The U.S. Department of the Army is a "person" as defined in WAC 173-360-120, Section 9001(6) of RCRA, 42 U.S.C. § 6991(6) and 40 C.F.R. § 280.12.

2.6 Respondent is the "owner" and "operator" of "USTs" located at Fort Lewis as those terms are defined in WAC 173-360-120, Section 9001 of RCRA, 42 U.S.C. § 6991, and 40 C.F.R. § 280.12.

2.7 As a person and owner/operator of USTs, the Department of the Army is subject to the UST requirements.

2.8 The U.S. Department of the Army is the Respondent in this case.

III. GENERAL ALLEGATIONS

3.1 These general allegations are listed by the type of violation for individual or groups of USTs. If the fact pattern for a type of violation is similar for a group of USTs, then that group is generally included in the same count. If the fact pattern for a type of violation is distinct for individual or groups of USTs (for example, leak detection equipment not being installed on a group of USTs compared to leak detection not being operational on a group of USTs because the power was turned off), then the violations for the USTs are in different counts. Some of the regulated USTs at Fort Lewis have multiple violations. Attachment 1 provides a listing of each UST (with violations) by location, count(s) and violation(s). In addition, each UST is identified in this Complaint by a five or six digit designation (for example, 3392-1) or a six digit alphanumeric designation (for example, 10A01-1). This designation is used by Fort Lewis to identify their

USTs, and is how Fort Lewis' USTs are registered with the Washington Department of Ecology.

SPILL PREVENTION FOR NEW TANKS

3.2 REGULATION: Pursuant to WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)], owners and operators of new UST systems must provide equipment to prevent spilling and overfilling associated with product transfer to the UST system.

3.3 COUNT 1: UST systems identified as 3392-1, 3392-2, and 3392-3 are new UST systems. All three systems have an in service date of 1991.

3.4 During the January 1994 inspection conducted by EPA Region 10 at Ft. Lewis and the September 1999 site inspection, each of the three UST systems (3392-1, 3392-2 and 3392-3) were found to have inadequate spill prevention because the uncovered concrete basins built around each UST system's fill pipe had an open drain valve. This equipment would not prevent the release of product to the environment when the transfer hose is detached from the fill pipe.

3.5 WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] requires new UST systems to meet spill prevention requirements for as long as the UST systems store regulated substances. The three new UST systems (3392-1, 3392-2, and 3392-3) have been out of compliance since being placed into service in 1991. Respondent's failure to meet the requirements of WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] for these three UST systems constitutes three violations of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

SPILL PREVENTION FOR EXISTING TANKS

3.6 REGULATION: Pursuant to WAC 173-360-310(4) [40 C.F.R. § 280.21(d)], to prevent spilling and overfilling associated with product transfer of regulated substances to the UST system, all existing UST systems shall comply with new UST system spill and overfill prevention requirements specified in WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] not later than December 22, 1998.

3.7 COUNT 2: UST systems identified as 3814-1, 3814-2 and 3955-1 are existing systems. All three UST systems have in service dates on or before December 22, 1988.

3.8 During the September 1999 site inspection, the three UST systems (3814-1, 3814-2 and 3955-1) were found to have uncovered concrete basins built around each UST system's fill pipe which had an open drain valve. This equipment would not prevent the release of product to the environment when the transfer hose is detached from the fill pipe.

3.9 WAC 173-360-310(4) [40 C.F.R. § 280.21(d)] requires that all existing UST systems comply with new UST system spill and overfill prevention requirements specified in WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] not later than December 22, 1998. All three UST systems (3814-1, 3814-2 and 3955-1) have been out of compliance since December 22, 1998. Respondent's failure to meet the requirements of WAC 173-360-310(4) [40 C.F.R. § 280.21(d)] for these three UST systems constitutes three violations of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

3.10 COUNT 3: UST systems identified as 9040-1, 9040-2 and 9580-7 are existing systems. All three UST systems have in service dates of 1988.

3.11 During the September 1999 site inspection, three UST systems (9040-1,

9040-2 and 9580-7) were found to have fabric devices with holes and duct tape patches that the inspector determined were not liquid tight. This equipment would not prevent the release of product to the environment when the transfer hose is detached from the fill pipe.

3.12 WAC 173-360-310(4) [40 C.F.R. § 280.21(d)] requires that all existing UST systems comply with new UST system spill and overfill prevention requirements specified in WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] not later than December 22, 1998. All three UST systems (9040-1, 9040-2 and 9580-7) have been out of compliance since December 22, 1998. Respondent's failure to meet the requirements of WAC 173-360-310(4) [40 C.F.R. § 280.21(d)] for these three UST systems constitutes three violations of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

3.13 COUNT 4: The UST system identified as 9190 is an existing UST system. This UST system has an in service date of 1987 and was reportedly upgraded in 1996.

3.14 During the September 1999 site inspection, it was found that existing UST system 9190 did not have any spill prevention system.

3.15 WAC 173-360-310(4) [40 C.F.R. § 280.21(d)] requires that all existing UST systems comply with new UST system spill and overfill prevention requirements specified in WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] not later than December 22, 1998. UST system 9190 has been out of compliance since December 22, 1998. Respondent's failure to meet the requirements of WAC 173-360-310(4) [40 C.F.R. § 280.21(d)] for this UST system constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

OVERFILL PREVENTION FOR NEW TANKS

3.16 REGULATION: Pursuant to WAC 173-360-305(3) [40 C.F.R. §

280.20(c)(1)], owners and operators of new UST systems must provide equipment to prevent spilling and overfilling associated with product transfer to the UST system.

3.17 COUNT 5: UST systems identified as 3392-1, 3392-2 and 3392-3 have in service dates of 1991.

3.18 During the January 1994 UST inspection conducted by EPA Region 10 at Ft. Lewis, the inspector observed that three UST systems (3392-1, 3392-2, and 3392-3) did not have any overfill prevention equipment. During the September 1999 site inspection, it was also found that the three UST systems (3392-1, 3392-2, and 3392-3) still did not have any overfill prevention equipment.

3.19 Thus, these three UST systems (3392-1, 3392-2, and 3392-3) have been out of compliance since they were placed into service in 1991 because they lacked overfill prevention equipment. WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] requires overfill prevention equipment for UST systems. Three UST systems (3392-1, 3392-2 and 3392-3) have not had overfill protection equipment since 1991. Respondent's failure to meet the requirements of WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] for these three UST systems constitutes three violations of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

3.20 COUNT 6: UST systems identified as 9635-3, 9635-4 and 9635-5 have in service dates of 1996.

3.21 During the September 1999 site inspection, it was found that each of the three UST systems (9635-3, 9635-4 and 9635-5) did not have adequate overfill prevention equipment. Each of the three UST systems (9635-3, 9635-4 and 9635-5) had two fill tubes, but only one of the fill tubes on each tank had overfill prevention equipment. One of the fill tubes on

each of the three UST systems (9635-3, 9635-4 and 9635-5) did not have any overfill prevention equipment.

3.22 WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] requires that new UST systems meet overfill prevention requirements for as long as the UST systems store regulated substances. These three UST systems (9635-3, 9635-4 and 9635-5) have failed to have adequate overfill prevention equipment since they were put into service in 1996. Respondent's failure to meet the requirements of WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1) for these three UST systems constitutes three violations of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

OVERFILL PREVENTION IN EXISTING TANKS

3.23 REGULATION: Pursuant to WAC 173-360-310(4) [40 C.F.R. § 280.21(d)], to prevent spilling and overfilling associated with product transfer of regulated substances to the UST system, all existing UST systems shall comply with new UST system spill and overfill prevention requirements specified in WAC 173-360-305(3) [40 C.F.R. § 280.20(c)(1)] not later than December 22, 1998.

3.24 COUNT 7: UST systems 9040-1 and 9040-2 have in service dates of 1988 and were reported by Fort Lewis to have been upgraded in 1996.

3.25 During the September 1999 site inspection, it was found that these UST systems (9040-1 and 9040-2) lacked overfill protection equipment.

3.26 These two UST systems (9040-1 and 9040-2) have failed to have overfill protection equipment since December 23, 1998. WAC 173-360-310(4) [40 C.F.R. § 280.21(d)] requires overfill protection for existing USTs. The two UST systems (9040-1 and 9040-2) have

been out of compliance since December 23, 1998. Respondent's failure to meet the requirements of WAC 173-360-310(4) [40 C.F.R. § 280.21(d)], for these two UST systems constitutes two violations of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

CORROSION PROTECTION

3.27 REGULATION: Pursuant to WAC 173-360-320(1) [40 C.F.R. § 280.31(a)], owners and operators of steel UST systems must operate and maintain a corrosion protection system so that it continuously provides corrosion protection.

3.28 COUNT 8: The UST system identified as 3381-1 is a steel UST system with an in service date of 1991.

3.29 During the September 1999 site inspection, review of base records showed that UST system 3381-1 failed a corrosion protection test on April 22, 1999. Base records establish that the cathodic protection repairs were made to UST system 3381-1 during September 1999.

3.30 UST system 3381-1 did not have continuous corrosion protection from April 1999, to September 1999. WAC 173-360-320(1) [40 C.F.R. § 280.31(a)] requires continuous corrosion protection for steel UST systems. Respondent's failure to comply with the requirements of WAC 173-360-320(1) [40 C.F.R. § 280.31(a)] for UST system 3381-1 constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

3.31 COUNT 9: UST systems identified as 3850-2 and 9500-2 are steel UST systems with an in service date of 1994 and 1995, respectively.

3.32 During the September 1999 site inspection, review of base records showed that these two UST systems (3850-2 and 9500-2) failed a corrosion protection test on April 22,

1999. Base records establish that cathodic protection repairs have not been undertaken at these two UST systems.

3.33 UST systems 3850-2 and 9500-2 do not have continuous corrosion protection from April 22, 1999 to the present date. WAC 173-360-320(1) [40 C.F.R. 280.31(a)] requires continuous corrosion protection for steel UST systems. Respondent's failure to comply with the requirements of WAC 173-360-320(1) [40 C.F.R. § 280.31(a)] for UST systems 3850-2 and 9500-2 constitutes two violations of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

LEAK DETECTION

3.34 REGULATION: Pursuant to WAC 173-360-330 and WAC 173-360-335, [40 C.F.R. § 280.40 and § 280.41] owners and operators of new and existing UST systems must comply with release detection requirements set forth in WAC 173-360-335 in accordance with the compliance schedule provided in WAC 173-360-330 [40 C.F.R. § 280.40].

3.35 For nine UST systems used to store fuel used in emergency power generators (2003-3; 7500-1; 9040-1; 9040-2; 9190; 9500-2; 9580-8; 9580-9 and 9580-10), the September 1999 site inspection found that the Respondent had not installed leak detection or removed the tanks from service by the compliance dates articulated in WAC 173-360-330.

3.36 COUNT 10: Under the schedule set forth in WAC-173-360-330, emergency generator tanks installed after December 29, 1990, must meet leak detection requirements immediately upon installation.

3.37 UST system 2003-3 is an emergency power generator tank with an in service date of 1991.

3.38 UST system 2003-3 has been operating without leak detection since 1991. WAC 173-360-330 requires that emergency generator tanks installed after December 29,1990, meet leak detection requirements immediately upon installation. Respondent's failure to comply with WAC 173-360-330 and 173-360-335 requirements for UST system 2003-3 constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

3.39 COUNT 11: Under the schedule set forth in WAC-173-360-330, emergency generator tanks installed after December 29, 1990, must meet leak detection requirements immediately upon installation.

3.40 UST system 9500-2 has an in service date as an emergency power generator tank of 1995.

3.41 UST system 9500-2 has been operating without leak detection since 1995. WAC 173-360-330 requires that emergency generator tanks installed after December 29, 1990, meet leak detection requirements immediately upon installation. Respondent's failure to comply with WAC 173-360-330 and 173-360-335 requirements for UST system 9500-2 constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

3.42 COUNT 12: Under the schedule set forth in WAC-173-360-330, emergency power generator UST systems installed between 1980 and 1988 must meet leak detection requirements by December 22, 1995.

3.43 UST systems 9040-1 and 9040-2 have in service dates as emergency power generator tanks of 1988. UST system 9190 has an in service date as an emergency power generator tank of 1987.

3.44 UST systems 9040-1, 9040-2 and 9190 have been operating out of

compliance with leak detection requirements since December 22, 1995. WAC 173-360-330 requires that emergency power generator UST systems installed between 1980 and 1988 must meet leak detection requirements by December 22, 1995. Respondent's failure to comply with the requirements of WAC 173-360-330 and WAC 173-360-335 requirements for UST systems 9040-1, 9040-2 and 9190 constitutes three violations of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

3.45 COUNT 13: Under the schedule set forth in WAC-173-360-330, emergency generator UST systems installed between 1989 and 1990 must meet leak detection requirements by December 22, 1996.

3.46 UST system 7500-1 has an in service date as an emergency power generator tank of 1990.

3.47 UST system 7500-1 has been operating out of compliance with leak detection requirements since December 22, 1996.

3.48 WAC 173-360-330 requires that emergency generator tanks installed between 1989 and 1990 meet leak detection requirements by December 22, 1996. Respondent's failure to comply with WAC 173-360-330 and WAC 13-360-335 requirements for UST system 7500-1 constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

3.49 COUNT 14: For UST systems installed in 1992, WAC 173-360-330 [40 C.F.R. § 280.40] requires leak detection immediately upon installation. During the September 1999 site inspection, it was found that the Respondent had not installed leak detection on three UST systems (9580-8, 9580-9 and 9580-10) or removed the tanks from service by the compliance dates articulated in WAC 173-360-330.

3.50 UST systems (9580-8, 9580-9, and 9580-10) have in service dates of 1992 for purposes of storing fuel for vehicle use.

3.51 UST systems 9580-8, 9580-9, and 9580-10 have been operating without leak detection since 1992. WAC 173-360-330 requires that UST systems installed in 1992 meet leak detection requirements immediately upon installation. Respondent's failure to comply with WAC 173-360-330 and WAC 173-360-335 requirements for UST systems 9580-8, 9580-9, and 9580-10 constitutes three violations of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

3.52 COUNT 15: Pursuant to WAC 173-360-335(b)[40 C.F.R. § 280.40(a)(2)], owners and operators of new and existing petroleum UST systems shall provide a method, or combination of methods, of release detection that is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition.

3.53 During the September 1999 site inspection, it was found that the Respondent did not operate and maintain the release detection systems for eleven UST systems (3814-1, 3814-2, and 3814-3; 10A01-1, 10A01-2, and 10A01-3; 12E01-1 and 12E01-2; 14E01-1, 14E01-2, and 14E01-3).

3.54 UST systems 3814-1, 3814-2 and 3814-3 have in service dates of 1987. UST systems 10A01-1, 10A01-2, 12E01-1, 12E01-2, 14E01-1, 14E01-2, and 14E01-3 have in service dates of 1993. UST system 10A01-3 has an in service date of 1997.

3.55 UST systems (3814-1, 3814-2, and 3814-3; 10A01-1, 10A01-2, and 10A01-3; 12E01-1 and 12E01-2; 14E01-1, 14E01-2, and 14E01-3) all had release detection equipment,

but the power had been turned off, so there was no monitor or alarm.

3.56 UST systems 3814-1, 3814-2, and 3814-3; 10A01-1, 10A01-2, and 10A01-3; 12E01-1 and 12E01-2; 14E01-1, 14E01-2, and 14E01-3 were operated without release detection at the time of the September 1999, site inspection.

3.57 WAC 173-360-335(b) requires that owners and operators of new and existing petroleum UST systems shall provide a method, or combination of methods, of release detection that is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition. Respondent's failure to comply with WAC 173-360-335(b) requirements for UST systems 3814-1, 3814-2, and 3814-3; 10A01-1, 10A01- 2, and 10A01-3; 12E01-1 and 12E01-2; 14E01-1, 14E01-2, and 14E01-3 constitutes eleven violations of these provisions under RCRA Section 9006, 42 U.S.C. 6991e.

LEAK DETECTION FOR PIPING

3.58 REGULATION: Pursuant to WAC 173-360-350 [40 C.F.R. § 280.44], owners and operators of UST systems must comply with the release detection requirements for piping. WAC 173-360-350(2)(b) [40 C.F.R.§ 280.41(b)(2) and § 280.44] sets forth the specific requirements for underground piping that conveys regulated substances under suction. WAC 173-360-350 (2)(b) requires underground piping that conveys regulated substances under suction to either have a line tightness test conducted at least every three years or to use a monthly monitoring method unless the piping is designed and constructed to meet the standards set forth in WAC 173-360-350 (2)(b)(i-v) [40 C.F.R. § 280.41(b)(2)(i-v)].

3.59 COUNT 16: Under the schedule set forth in WAC 173-360-330, emergency power generator UST systems installed after December 29, 1990, must have release detection for piping immediately upon installation.

3.60 UST system 2003-3 has an in service date of 1991. UST system 2003-3 was used to store fuel used in emergency power generators. UST system 2003-3 has suction piping with check valves located near the tank.

3.61 During the September 1999 site inspection, it was found that Respondent failed to use any suction piping release detection method for UST system 2003-3. UST system 2003-3 also failed to meet the conditions set in forth in WAC 173-360-350 (2)(b)(i-v) to be exempt from the suction piping leak detection requirements. Respondent could not produce any records of either the tightness testing or a monthly monitoring method during the September 1999 site inspection.

3.62 UST system 2003-3 has been operating without release detection for the suction piping since 1991. WAC 173-360-350 requires that emergency power generator UST systems installed after December 29, 1990, have release detection for piping immediately upon installation. Respondent's failure to comply with WAC 173–360-350 requirements for UST system 2003-3 constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

3.63 COUNT 17: Under the schedule set forth in WAC 173-360-330, emergency power generator UST systems installed after December 29, 1990, must have release detection for piping immediately upon installation.

3.64 UST system 3850-2 has an in service date of 1994. UST system 3850-2

was used to store fuel used in emergency power generators. UST system 3850-2 has suction piping with check valves located near the tank.

3.65 During the September 1999 site inspection, it was found that the Respondent failed to use any suction piping release detection method for UST system 3850-2. UST system 3850-2 also failed to meet the conditions set in forth in WAC 173-360-350 (2)(b)(i-v) to be exempt from the suction piping leak detection requirements. Respondent could not produce any records of either the tightness testing or a monthly monitoring method during the September 1999 site inspection.

3.66 UST system 3850-2 has been operating without release detection for the suction piping since 1994. WAC 173-360-350 requires that emergency power generator UST systems installed after December 29, 1990, to have release detection for piping immediately upon installation. Respondent's failure to comply with WAC 173–360-350 requirements for UST system 3850-2 constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

3.67 COUNT 18: Under the schedule set forth in WAC 173-360-330, emergency power generator UST systems installed between 1980 and 1988, must have release detection for suction piping by December 22, 1995.

3.68 UST systems 9040-1 and 9040-2 have in service dates of 1988.

3.69 During the September 1999 site inspection, it was found that UST systems 9040-1 and 9040-2 had suction piping which was sloped down from the tank to the check valve.

3.70 The two UST systems (9040-1 and 9040-2) failed to meet the conditions set in forth in WAC 173-360-350 (2)(b)(i-v) to be exempt from the suction piping leak detection

requirements.

3.71 During the September 1999 site inspection, it was found that Respondent failed to use any suction piping release detection method for UST systems 9040-1 and 9040-2. Respondent could not produce any records of either the tightness testing or a monthly monitoring method during the September 1999 site inspection.

3.72 UST systems 9040-1 and 9040-2 have been operating out of compliance with the requirements for release detection for suction piping since December 23, 1995. WAC 173-360-350(2)(b) [40 C.F.R. § 280.41(b)] requires that emergency power generator UST systems installed between 1980 and 1988, must have release detection for suction piping by December 22, 1995. Respondent's failure to comply with WAC 173-360-350(2)(b) [40 C.F.R. § 280.41(b)] requirements for UST systems 9040-1 and 9040-2 constitutes two violations of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

3.73 COUNT 19: Under the schedule set forth in WAC 173-360-330, emergency power generator UST systems installed after December 29, 1990, must have release detection for piping immediately upon installation.

3.74 UST system 3205-4 has an in service date of 1994. UST system 3205-4 has pressure piping and uses interstitial monitoring.

3.75 During the September 1999 site inspection, the inspectors observed that the tank had the sump probe over one foot off the bottom of the sump. Therefore, there was not continuous monitoring of the interstitial space. Respondent also lacked monthly interstitial monitoring records for the tank, or piping, or records of the annual Automatic Line Leak Detectors (ALLD) test.

3.76 UST system 3205-4 has been operating without release detection for the piping since 1994. WAC 173-360-350 requires that emergency power generator UST systems installed after December 29, 1990 have release detection for piping immediately upon installation. Respondent's failure to comply with WAC 173–360-350 requirements for UST system 3205-4 constitutes a violation of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e.

RELEASE DETECTION RECORDKEEPING

3.78 REGULATION: Pursuant to WAC 173-360-355 [40 C.F.R. § 280.45], owners and operators of UST systems must maintain records demonstrating compliance with all applicable requirements of WAC 173-360-330 through 173-360-355. WAC 173-360-210(2)(c) [40 C.F.R. § 280.34] specifically requires owners and operators of UST systems to maintain and make available recent compliance with release detection requirements under WAC 173-360-335(2)(a) [40 C.F.R. § 280.41(a)] . WAC 173-360-335(2)(a) [40 C.F.R. § 280.41(a)] requires that tanks must be monitored at least every 30 days for releases using one of the methods listed in WAC 173-360-343(6)(e) through (j) [40 C.F.R. § 280.43(d) through (h)].

3.79 COUNT 20: UST systems 8981-1 and 8981-2 have in service dates of 1996. The UST systems use vapor monitoring for tank and piping release detection.

3.80 During the September 1999 site inspection, it was found that Respondent did not have any monthly vapor monitoring records for the UST systems (8981-1 and 8981-2) tanks or piping. Respondent also could not produce any records of tightness testing during the September 1999 inspection.

3.81 UST systems 8981-1 and 8981-2 have been operating without maintaining their recordkeeping requirements since 1996. WAC 173-360-355 [40 C.F.R. § 280.45], requires

that owners and operators of UST systems using a vapor monitoring system must maintain records of their vapor monitoring system every 30 days. Respondent's failure to comply with WAC 173-360-355 [40 C.F.R. § 280.45] requirements for UST systems 8981-1 and 8981-2 constitutes two violation of these provisions under RCRA Section 9006, 42 U.S.C. § 6991e .

TEMPORARY CLOSURE

3.82 REGULATION: Pursuant to WAC 173-360-380 [40 C.F.R. § 280.70], owners and operators of UST systems must comply with the temporary closure requirements for UST systems.

3.83 COUNT 21: UST system 3850-2 has an in service date of 1994.

3.84 During the September 1999 site inspection, it was found that Respondent did not submit to the State of Washington a 30 day notice for closure for UST system 3850-2. During the site inspection it was found that Respondent failed to cap or secure the lines, pumps, manways and other ancillary equipment as required since UST system 3850-2 had been out of service for more than 3 months (since January 1999).

3.85 UST system 3850-2 has not met the closure requirements since April 1999 until present. WAC 173-360-380 [40 C.F.R. § 280.70] requires that owners and operators of UST systems must comply with the temporary closure requirements for UST systems that have been temporarily closed for 3 months or more. Respondent's failure to comply with WAC 173-360-380 [40 C.F.R. § 280.70] requirements for UST system 3850-2 constitutes a violation of these provisions of RCRA Section 9006, 42 U.S.C. § 6991e.

IV. COMPLIANCE ORDER

4.1 Based on the foregoing findings, Respondent is hereby ORDERED to comply with the following requirements pursuant to Section 9006(a) of RCRA, 42 U.S.C. § 6991e:

4.2 Respondent shall immediately comply with the release detection requirements set forth at WAC 173-360 Part III, [40 C.F.R. Part 280, Subpart D] for UST systems as listed in Attachment 1 on the effective date of this Compliance Order.

4.3 Respondent shall immediately comply with the corrosion protection requirements set forth at WAC 173-360-320(1) [40 C.F.R. § 280.31(a)] for UST systems as listed in Attachment 1 on the effective date of this Compliance Order.

4.4 Respondent shall immediately comply with the overfill and spill prevention requirements set forth at WAC 173-360-305(3) and WAC 173-360-310(4) [40 C.F.R. § 280.20(c)(1) and § 280.21(d)] for UST systems as listed in Attachment 1 on the effective date of this Compliance Order.

4.5 Respondent shall immediately comply with the recordkeeping requirements set forth at WAC 173-360-355 [40 C.F.R. § 280.45] for UST systems as listed in Attachment 1 on the effective date of this Compliance Order.

4.6 Respondent shall, within 10 days of the effective date of this Compliance Order, provide EPA copies of all notifications of discovered releases or suspected releases of regulated substances at Ft. Lewis given to Washington State authorities as required by WAC 173-360-370 [40 C.F.R. § 280.50].

4.7 Respondent shall immediately close any UST systems listed in Attachment

1, that does not meet the requirements of WAC 173-360-300, WAC 173-360-305, WAC 173-360-310, WAC 173-360-355 [40 C.F.R. § 280.20, § 280.21, § 280.45 or § 280.70]. UST systems must be closed in accordance with WAC 173-360 Part III [40 C.F.R. Part 280, Subpart G].

4.8 Respondent shall submit in writing within 30 days of the effective date of this Order a notification that the Respondent has complied with all the requirements of this Section (Section IV: Compliance Order) .

4.9 All submissions and notifications Respondent is directed to provide EPA, or copies of submissions or notifications Respondent is directed to provide the State of Washington, in this Compliance Order must be furnished to the following EPA contact:

EPA's UST Case Development Officer :

Melanie Garvey
Environmental Protection Agency
Federal Facilities Enforcement Office (MC-2261A)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004

4.10 If Respondent fails to comply with any requirement of this order, Section 9006(a) of RCRA, and 40 C.F.R. Part 19 provide that Respondent shall be liable for a civil penalty of not more than $27,500 for each day of continued noncompliance.

V. PROPOSED CIVIL PENALTY

5.1 Section 9006(d)(2) (B) of RCRA, 42 U.S.C. § 6991e(d)(2) (B), authorizes the assessment of a civil penalty of up to TEN THOUSAND DOLLARS ($10,000.00) for each UST or UST system for each day of violation of any requirement or standard of a State program

approved pursuant to Section 9004 of RCRA or promulgated by the Administrator of the United States Environmental Protection Agency. Pursuant to the Debt Collection and Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321 (1996) and the regulations promulgated thereunder (see the Civil Monetary Penalty Inflation Adjustment Rule, 61 Fed. Reg. 69360 (December 31, 1996), codified at 40 C.F.R. Part 19), for violations occurring on January 31, 1997 and thereafter, the statutory maximum penalty for each UST system for each day of violation has been raised to ELEVEN THOUSAND DOLLARS ($11,000.00). Based upon the facts alleged in this Complaint and taking into account the seriousness of the violation and any known good faith efforts by Respondent to comply with the applicable requirements, Complainant proposes, subject to receipt and evaluation of further relevant information, a civil penalty totaling **$ 469,661** against the Respondent. The final penalty was calculated in accordance with the "U.S. EPA Penalty Guidance for Violations of UST Requirements" dated November 1990. This policy provides a rational, consistent and equitable calculation methodology for applying the statutory penalty factors to particular cases. A copy of this policy is attached to the complaint as Attachment 2. The UST Penalty Computation worksheets are attached to this complaint as Attachment 3, and are summarized below.

Count/Regulation	**Violation**	**Penalty Amount**
1: WAC 173-360-305(3)	Failure to provide adequate spill prevention for new tanks	$23,472
2: WAC 173-360-310(4)	Failure to provide adequate spill prevention for existing tanks	$11,137
3: WAC 173-360-310(4)	Failure to provide spill equipment for existing systems	$11,850

4:	WAC 173-360-310(4)	Failure to provide spill equipment for existing systems	$13,082
5:	WAC 173-360-305(3)	Failure to install and operate overfill equipment for new tanks	$35,824
6:	WAC 173-360-305(3)	Failure to provide adequate overfill prevention equipment for new tanks	$30,736
7:	WAC 173-360-310(4)	Failure to provide overfill prevention in existing tanks	$13,097
8:	WAC 173-360-320(1)	Failure to operate and maintain corrosion protection system continuously	$ 4,455
9:	WAC 173-360-320(1)	Failure to operate and maintain corrosion protection system continuously	$14,850
10:	WAC 173-360-335	Failure to provide leak detection	$19,677
11:	WAC 173-360-335	Failure to provide leak detection	$19,677
12:	WAC 173-360-335	Failure to provide leak detection	$62,297
13:	WAC 173-360-335	Failure to provide leak detection	$15,748
14:	WAC 173-360-335	Failure to provide leak detection	$60,675
15:	WAC 173-360-335(b)	Failure to operate and maintain leak	$40,838
16:	WAC 173-360-350	Failure to provide leak detection for piping	$18,779
17:	WAC 173-360-350	Failure to provide leak detection for piping	$18,779

18: WAC 173-360-350	Failure to provide leak detection for piping	$34,668
19: WAC 173-360-350	Failure to provide leak detection for piping	$ 6,260
20: WAC 173-360-355	Failure to maintain leak detection recordkeeping	$10,593
21: WAC 173-360-380	Failure to meet temporary closure requirements	$ 3,167

VI. NOTICE OF OPPORTUNITY TO REQUEST A HEARING

6.1 Complainant, Manager of the Ground Water Protection Unit, U.S. Environmental Protection Agency (EPA), Region 10, issues this Complaint and Compliance Order to the United States Department of the Army, Fort Lewis ("Respondent"), in Fort Lewis, Washington.

6.2 To avoid being found in default, Respondent must file with the Regional Hearing Clerk a written Answer within thirty (30) days after receiving this complaint. For purposes of this action, default by Respondent constitutes an admission of all facts alleged in the Complaint and a waiver of Respondent's right to a hearing under 40 CFR § 22.15 concerning such factual allegations. The proposed penalty shall become due and payable by Respondent without further proceedings thirty (30) days after issuance of a Final Order upon default. Upon issuance of the Final Order upon default, Respondent must immediately comply with the "Order" set forth in the Complaint.

6.3 The Answer shall clearly and directly admit, deny, or explain each of the

factual allegations contained in the Complaint with regard to which Respondent has any knowledge. Where the Respondent has no knowledge of a particular factual allegation and so states, the allegation is deemed denied. Failure of Respondent, to admit, deny, or explain any material factual allegation contained in the Complaint constitutes an admission of the allegation. The Answer shall also state: (1) the circumstances or arguments which are alleged to constitute the grounds of defense; (2) the facts which Respondent intends to place at issue, and; (3) whether a hearing is requested. A hearing upon the issues raised by the Complaint and Answer shall be held upon request of the Respondent in the Answer.

6.4 A hearing, if requested, will be conducted in accordance with the provisions of the Administrative Procedures Act (5 U.S.C. §§ 552 et seq.), and the Consolidated Rules of Practice, codified at 40 CFR 22. A copy of the Consolidated Rules of Practice is attached (Attachment 4). Respondent may retain counsel to represent them at the hearing.

6.5 The Answer must be sent to:

Regional Hearing Clerk
U.S. Environmental Protection Agency
Region 10
1200 6th Avenue, ORC-158
Seattle, Washington 98101

6.6 A copy of the answer and all other documents which Respondent files in this action must be furnished to Joan W. Olmstead, the attorney assigned to represent EPA in this matter, at:

Joan W. Olmstead
Environmental Protection Agency
Office of Regulatory Enforcement
RCRA Enforcement Division (2246A)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004

VII. SETTLEMENT CONFERENCE

7.1 Whether or not a hearing is requested, Respondent may contact the above-named attorney at (202) 564-4018 to arrange for an informal settlement conference to discuss the facts of this case, the amount of the proposed penalty, or the possibility of settlement. The EPA encourages settlement consistent with the provisions and objectives of the applicable regulations. A request for a settlement conference does not extend the thirty (30) day period during which the written Answer and a request for hearing must be submitted. The settlement conference procedures may be pursued as an alternative to and simultaneous with the formal hearing procedures. Respondent may appear at the settlement conference and/or be represented by counsel.

7.2 Any settlement reached by the parties shall be set forth in a written Consent Agreement and Final Order signed by the Regional Administrator, EPA Region 10, in accordance with 40 CFR § 22.18. The issuance of a Final Order shall constitute a waiver of Respondent's right to request a hearing on any matter stipulated therein.

VIII. Payment of Penalty

8.1 Instead of requesting an informal settlement conference and/or filing an Answer requesting a hearing, Respondent may choose to comply with the Compliance Order provisions and pay the proposed penalty. In order to do this, Respondent must first establish contact with the EPA attorney named in Section VI of this Complaint to arrange for the preparation of a Consent Agreement and Final Order.

ISSUED AT SEATTLE THIS 18th DAY OF September, 2000

Tim Hamlin, Manager
Ground Water Protection Unit
U.S. EPA, Region 10

IX. CERTIFICATE OF SERVICE

9.1 I hereby certify that the original of the foregoing Complaint and Compliance Order concerning U.S. Department of Army, Fort Lewis Docket No. RCRA-10-2000-0216, was filed with the Regional Hearing Clerk, EPA Region 10, Seattle, Washington, and a true and correct copy of such Complaint, together with a copy of the Consolidated Rules of Practice (40 CFR Part 22) and the U.S. EPA Penalty Guidance for violations of UST Regulations was placed in the United States mail, postage prepaid, certified mail, return receipt requested, on this 18th day of Sep, 2000, addressed to the following:

Colonel Uldric L. Fiore
Chief of Litigation Division
Office of Judge Advocate General
United States Department of the Army
901 North Stuart Street
Arlington, VA 22203

Kim Bremer, Secretary
Ground Water Protection Unit
U.S. EPA, Region 10

Attachment #1

Summary of USTs at Fort Lewis with Violations

Attachment 1: Summary of USTs at Fort Lewis with Violations

Tank	Location	Count(s)	Violation(s)
2003-3	1115th Signal Battalion	16	WAC 173-360-350
3381-1	29th Signal Battalion	8	WAC 173-360-320(1)
3392-1	864th Engineering Battalion	1, 5	WAC 173-360-305(3) WAC 173-360-305(3)
3392-2	864th Engineering Battalion	1, 5	WAC 173-360-305(3) WAC 173-360-305(3)
3392-3	864th Engineering Battalion	1, 5	WAC 173-360-305(3) WAC 173-360-305(3)
3814-1	1st of 33rd and 1st of 32nd Armor	2, 15	WAC 173-360-310(4) WAC 173-360-335(b)
3814-2	1st of 33rd and 1st of 32nd Armor	2, 15	WAC 173-360-310(4) WAC 173-360-335(b)
3814-3	1st of 33rd and 1st of 32nd Armor	15	WAC 173-360-335(b)
3850-2	Public Works	9, 17, 21	WAC 173-360-320(1) WAC 173-360-350 WAC 173-360-380
3955-1	1st of 37th Field Artillery	2	WAC 173-360-310(4)
7500-1	Public Works	13	WAC 173-360-330/335
9040-1	Madigan Hospital	3, 7, 12	WAC 173-360-310(4) WAC 173-360-310(4) WAC 173-360-330/335
9040-2	Madigan Hospital	3, 7, 12	WAC 173-360-310(4) WAC 173-360-310(4) WAC 173-360-330/335

Attachment # 2

UST Penalty Policy

(Not included in the copy of the document)

Attachment #3

Penalty Calculation Worksheets

Attachment 3: Penalty Calculation Worksheets

Summary of Gravity and Economic Benefit Components

Count/Regulation	Gravity	Economic Benefit	Total
1: WAC 173-360-305(3)	$23,472	--	$23,472
2: WAC 173-360-310(4)	$11,137	--	$11,137
3: WAC 173-360-310(4)	$11,139	$ 711	$11,850
4: WAC 173-360-310(4)	$12,993	$ 89	$13,082
5: WAC 173-360-305(3)	$35,211	$ 613	$35,824
6: WAC 173-360-305(3)	$30,279	$ 457	$30,736
7: WAC 173-360-310(4)	$12,994	$ 103	$13,097
8: WAC 173-360-320(1)	$ 4,455	--	$ 4,455
9: WAC 173-360-320(1)	$14,850	--	$14,850
10: WAC 173-360-335	$18,779	$ 898	$19,677
11: WAC 173-360-335	$18,779	$ 898	$19,677
12: WAC 173-360-335	$52,392	$9,905	$62,297
13: WAC 173-360-335	$14,850	$ 898	$15,748
14: WAC 173-360-335	$56,337	$4,338	$60,675
15: WAC 173-360-335(b)	$40,838	--	$40,838
16: WAC 173-360-350	$18,779	--	$18,779
17: WAC 173-360-350	$18,779	--	$18,779

18: WAC 173-360-350	$34,668	--	$34,668
19: WAC 173-360-350	$ 6,260	--	$ 6,260
20: WAC 173-360-355	$10,593	–	$10,593
21: WAC 173-360-380	$ 2,970	$ 197	$ 3,167

Count 1: Spill Prevention for New Tanks

Explanation: For count 1, the violator specific adjustments (VSA) are increased from 1.0 to 1.3 due to the degree of willfulness and negligence associated with these particular violations (In 1994, the same violations at the same tanks were found. The facility knew of the violations at the time from the exit interview and inspection report, but did not fix them. The history of non-compliance factor has not been adjusted up, since the inspection occurred more than 5 years ago.) The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the problems, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.5.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $500.00 per tank (moderate/moderate)

Violator Specific Adjustments (VSA)=1.5

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR)= 1 + .1(Time Period of Violation since January 31, 1997 / Total Time Period of Violation)

For Count 1 this is as follows: IAR = 1 + .1(3.5 years/5 years) = 1.07

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 1:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3392-1	500	1991	9/95	5 years	6.5	$ 7,824
3392-2	500	1991	9/95	5 years	6.5	$ 7,824
3392-3	500	1991	9/95	5 years	6.5	$ 7,824
TOTAL 1						**$ 23,472**

Count 2: Spill Prevention for Existing Tanks

Explanation: For count 2, the violator specific adjustments (VSA)are increased from 1.0 to 1.3 due to the degree of willfulness and negligence associated with these particular violations (In 1994, the same violations at the same tanks were found. The facility knew of the violations at the time from the exit interview and inspection report, but did not fix them. The history of non-compliance factor has not been adjusted up, since the inspection occurred more than 5 years ago.) The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the problems, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.5.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location

in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $500.00 per tank (moderate/moderate)

Violator Specific Adjustments (VSA)=1.5

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) = 1.10

Gravity Component = MV x VSA x ES x DNC

Gravity Calculation for Count 2:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3814-1	500	12/23/98	Not Applicable	1.5 years	3.0	$ 3,712
3814-2	500	12/23/98	Not Applicable	1.5 years	3.0	$ 3,712
3955-1	500	12/23/98	Not Applicable	1.5 years	3.0	$ 3,713
Total 2						**$11,137**

Count 3: Spill Prevention for Existing Tanks

Explanation: For count 3, the violator specific adjustments (VSA)are increased from 1.0 to 1.3 due to the degree of willfulness and negligence associated with these particular violations (In 1994, the same violations at the same tanks were found. The facility knew of the violations at the time from the exit interview and inspection report, but did not fix them. The history of non-compliance factor has not been adjusted up, since the inspection occurred more than 5 years ago.) The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the problems, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.5.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $500.00 per tank (moderate/moderate)

Violator Specific Adjustments (VSA)=1.5

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) = 1.10

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 3:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
9040-1	500	12/23/98	Not Applicable	1.5 years	3.0	$ 3,713
9040-2	500	12/23/98	Not Applicable	1.5 years	3.0	$ 3,713
9580-7	500	12/23/98	Not Applicable	1.5 years	3.0	$ 3,713
Total 3						**$11,139**

Count 4: Failure to Provide Spill Equipment for Existing System

Explanation: For count 4, the violator specific adjustments (VSA) are increased from 1.0 to 1.55 due to the degree of willfulness and negligence associated with this particular violation. This increase is due to the attempts of EPA and the EPA Administrator to provide outreach and technical assistance to the Federal agencies in advance of the upgrade requirements. DOD reported to the Administrator that they had no upgrade violations as of December 23, 1998. The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the problems, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.75.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= 1500.00 per tank (major/major)

Violator Specific Adjustments (VSA)=1.75

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule = 1.10

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 4:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
9190	1500	12/23/98	Not Applicable	1.5 years	3.0	$ 12,993
Total for 4						**$ 12,993**

Count 5: Overfill Prevention for New Tanks

Explanation: For count 5, the violator specific adjustments (VSA)are increased from 1.0 to 1.3 due to the degree of willfulness and negligence associated with these particular violations (In 1994, the same violations at the same tanks were found. The facility knew of the violations at the time from the exit interview and inspection report, but did not fix them. The history of non-compliance factor has not been adjusted up, since the inspection occurred more than 5 years ago.) The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the problems, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.5.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential

communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= 750.00 per tank (major/moderate) Violator Specific Adjustments (VSA)= 1.5

Environmental Sensitivity(ES)=1.5 Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) = 1.07

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 5:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustmen t	Time Period	DNCM	Gravity Componen t
3392-1	750	1991	9/95	5 years	6.5	$ 11,737
3392-2	750	1991	9/95	5 years	6.5	$ 11,737
3392-3	750	1991	9/95	5 years	6.5	$ 11,737
Total Count 5						**$ 35,211**

Count 6: Overfill Prevention for New Tanks

Explanation: For count 6, the violator specific adjustments (VSA)are increased from 1.0 to 1.3 due to the degree of willfulness and negligence associated with these particular violations (In 1994, the same violations at the same tanks were found. The facility knew of the violations at the time from the exit interview and inspection report, but did not fix them. The history of non-compliance factor has not been adjusted up, since the inspection occurred more than 5 years ago.) The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the

problems, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.5.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= 750.00 per tank (major/moderate) Violator Specific Adjustments (VSA)= 1.5

Environmental Sensitivity(ES)=1.5 Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) = 1.0875 for count 6

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 6:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
9635-3	750	1996	Not applicable	4 years	5.5	$ 10,093
9635-4	750	1996	Not applicable	4 years	5.5	$ 10,093
9635-5	750	1996	Not applicable	4 years	5.5	$ 10,093
Total 6						**$ 30,279**

Count 7: Failure to Provide Overfill Prevention in Existing Systems

Explanation: For count 7, the violator specific adjustments (VSA)are increased from 1.0 to 1.55 due to the degree of willfulness and negligence associated with these particular violations. This increase is due to the attempts of EPA and the EPA Administrator to provide outreach and technical assistance to the Federal agencies in advance of the upgrade requirements. DOD reported to the Administrator that they had no upgrade violations as of December 23, 1998. The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the problems, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.75.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= 750.00 per tank (major/moderate) Violator Specific Adjustments (VSA)=1.75

Environmental Sensitivity(ES)=1.5 Days of Noncompliance Multiplier(DNCM) Inflation Adjustment Rule (IAR)=1.1

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 7:

9040-1	750	12/23/98	Not Applicable	1.5 years	3.0	$ 6,497
9040-2	750	12/23/98	Not Applicable	1.5 years	3.0	$6,497
Total for 7						**$12,994**

Count 8: Corrosion Protection

Explanation: For count 8, the violator specific adjustments (VSA)are increased from 1.0 to1.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the UST problems at the base, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.2.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $1500.00 per tank (major/major)

Violator Specific Adjustments (VSA)=1.2

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) = 1.10

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 8:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3381-1	1500	4/22/99-9/99	Not applicable	<6 months	1.5	$ 4,455
TOTAL 8						**$ 4,455**

Count 9: Corrosion Protection

Explanation: For count 9, the violator specific adjustments (VSA)are increased from 1.0 to1.2 from the cooperation standpoint. Fort Lewis has indicated some degree of willingness in letters to address the UST problems at the base, but the problems are extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.2.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $1500.00 per tank (major/major) Violator Specific Adjustments (VSA)=1.2

Environmental Sensitivity(ES)=1.5 Days of Noncompliance Multiplier(DNCM) Inflation Adjustment Rule (IAR) =1.10

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 9:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3850-2	1500	4/22/99 to now	Not applicable	>1 year	2.5	$ 7,425
9500-2	1500	4/22/99 to now	Not applicable	> 1 year	2.5	$ 7,425
TOTAL 9						**$14,850**

Counts 10-15: Leak Detection

Explanation: The violator specific adjustment for these counts is also increased 0.2 from the cooperation standpoint since the problems are so extensive, and have not been addressed to date. Therefore, the VSA for these counts is 1.2.

For these counts and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $1500.00 per tank (major/major)

Violator Specific Adjustments (VSA)=1.2

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) varies by count

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 10: IAR= 1.07

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
2003-3	1500	1991	9/95	5 years	6.5	$ 18,779
Total 10						**$ 18,779**

Gravity Calculation for Count 11: IAR = 1.07

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
9500-2	1500	1995	9/95	5 years	6.5	$ 18,779
Total 11						**$ 18,779**

Gravity Calculation for Count 12: IAR =1.078

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
9040-1	1500	12/95	Not Applicable	4.5 years	6.0	$ 17,464
9040-2	1500	12/95	Not Applicable	4.5 years	6.0	$ 17,464
9190	1500	12/95	Not Applicable	4.5 years	6.0	$ 17,464
Total 12						**$ 52,392**

Gravity Calculation for Count 13: IAR = 1.10

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
7500-1	1500	12/96	Not Applicable	3.5 years	5.0	$ 14,850
Total 13						**$ 14,850**

Gravity Calculation for Count 14: IAR =1.07

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
9580-8	1500	1992	9/95	5 years	6.5	$ 18,779
9580-9	1500	1992	9/95	5 years	6.5	$ 18,779
9580-10	1500	1992	9/95	5 years	6.5	$ 18,779
Total 14						**$ 56,337**

Gravity Calculation for Count 15: IAR = 1.10

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3814-1	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
3814-2	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
3814-3	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
10A01-1	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
10A01-2	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
10A01-3	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
12EO1-1	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
12EO2-2	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50

14EO1-1	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
14EO1-2	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
14EO1-3	1500	9/1999	Not Applicable	1 day	1.0	$ 3,712.50
TOTAL 15						**$ 40,838**

Counts 16-19: Leak Detection for Piping

Explanation: The violator specific adjustment for these counts is also increased 0.2 from the cooperation standpoint, since the problems are so extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.2.

For these counts and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $1500.00 per piping system (major/major)

Violator Specific Adjustments (VSA)=1.2

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) = 1.07 (for all three counts, 16, 17, 18)

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 16:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
2003-3	1500	1991	9/95	5 years	6.5	$ 18,779
Total 16						**$ 18,779**

Gravity Calculation for Count 17:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3850-2	1500	1994	9/95	5 years	6.5	$ 18,779
Total 17						**$ 18,779**

Gravity Calculation for Count 18:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
9040-1	1500	12/95	Not Applicable	4.5 years	6.0	$ 17,334
9040-2	1500	12/95	Not Applicable	4.5 years	6.0	$ 17,334
Total 18						**$ 34,668**

Count 19 : Leak Detection for Piping

Explanation: The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint since the problems are so extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.2.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $500.00 per tank (moderate/moderate)

Violator Specific Adjustments (VSA)=1.2

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR) = 1.07

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 19:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3205-4	500	1994	9/95	5 years	6.5	$6,260
Total 19						**$6,260**

Count 20 : Leak Detection Record keeping

Explanation: The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint since the problems are so extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.2.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $500.00 per tank (moderate/moderate)

Violator Specific Adjustments (VSA)=1.2

Environmental Sensitivity(ES)=1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR)= 1.07

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 20:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
8981-1	500	1996	NA	4 years	5.5	$5,296.50
8981-2	500	1996	NA	4 years	5.5	$5,296.50
Total 20						**$10,593**

Count 21: Temporary Closure

Explanation: The violator specific adjustment for this count is also increased 0.2 from the cooperation standpoint since the problems are so extensive, and have not been addressed to date. Therefore, the VSA for this count is 1.2.

For this count and other counts in the complaint, the environmental sensitivity is assumed to be moderate (1.5). This factor may be increased based on the location of specific tanks to drinking water sources and proximity to wetlands, streams and other sensitive ecosystems. The moderate factor for Fort Lewis is assumed due to the Fort's proximity to the Puget Sound and its location in the Puget Sound Watershed. Fort Lewis is above a shallow, sole source aquifer. The groundwater on the base generally flows to the Northwest near a number of residential communities. Fort Lewis's land area also encompasses several lakes and wetlands.

All the factors are taken from the U.S. EPA Penalty Guidance for Violations of UST Regulations (11/14/1990)

Matrix Value (MV)= $1500.00 per tank (major/major)

Violator Specific Adjustments (VSA)= 1.2

Environmental Sensitivity(ES)= 1.5

Days of Noncompliance Multiplier(DNCM)

Inflation Adjustment Rule (IAR)= 1.10

Gravity Component = MV x VSA x ES x DNC x IAR

Gravity Calculation for Count 21:

Tank No.	Matrix Value	D.N.C.	Date w S.O.L. Adjustment	Time Period	DNCM	Gravity Component
3850-2	1500	4/1999	Not Applicable	<90 days	1	$ 2,970
Total 21						**$ 2,970**

Run Name =	Count 3 (9040-
Present Values as of Noncompliance Date (NCD),	23-Dec-1998
A) On-Time Capital & One-Time Costs	$8,057
B) Delay Capital & One-Time Costs	$7,572
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$485
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	$550
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.0%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$5,100
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

1 + 9040-2

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Count 3 (9580-
Present Values as of Noncompliance Date (NCD),	23-Dec-1998
A) On-Time Capital & One-Time Costs	$2,369
B) Delay Capital & One-Time Costs	$2,227
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$142
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$161**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.0%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$1,500
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Count 4
Present Values as of Noncompliance Date (NCD),	23-Dec-1998
A) On-Time Capital & One-Time Costs	$1,303
B) Delay Capital & One-Time Costs	$1,225
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$78
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$89**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.0%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$825
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Count 7
Present Values as of Noncompliance Date (NCD),	23-Dec-1998
A) On-Time Capital & One-Time Costs	$1,501
B) Delay Capital & One-Time Costs	$1,410
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$91
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$103**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.0%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$950
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct5 (3392-3)
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$697
B) Delay Capital & One-Time Costs	$551
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$146
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$204**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$475
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct5 (3392-1 an
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$1,393
B) Delay Capital & One-Time Costs	$1,102
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$291
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$409**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$950
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

3392-2)

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct6(9635-3&4)
Present Values as of Noncompliance Date (NCD),	01-Jul-1996
A) On-Time Capital & One-Time Costs	$1,413
B) Delay Capital & One-Time Costs	$1,182
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$231
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$305**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.6%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$950
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct6(9635-5)
Present Values as of Noncompliance Date (NCD),	01-Jul-1996
A) On-Time Capital & One-Time Costs	$706
B) Delay Capital & One-Time Costs	$591
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$115
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$152**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.6%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$475
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
# of Replacement Cycles; Useful Life	1; 15
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Tax Deductible?	N/A
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 10
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$2,881
B) Delay Capital & One-Time Costs	$2,241
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$640
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$898**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$3,000
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 11
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$2,881
B) Delay Capital & One-Time Costs	$2,241
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$640
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$898**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$3,000
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 12(9040-1&2
Present Values as of Noncompliance Date (NCD),	01-Dec-1995
A) On-Time Capital & One-Time Costs	$32,494
B) Delay Capital & One-Time Costs	$25,883
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$6,611
E) Final Econ. Ben. at Penalty Payment Date, 01-Aug-2001	$9,102
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$34,000
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 12(9190)
Present Values as of Noncompliance Date (NCD),	01-Dec-1995
A) On-Time Capital & One-Time Costs	$2,867
B) Delay Capital & One-Time Costs	$2,284
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$583
E) Final Econ. Ben. at Penalty Payment Date, 01-Aug-2001	**$803**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$3,000
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 13
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$2,881
B) Delay Capital & One-Time Costs	$2,241
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$640
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$898**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$3,000
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 14(9580-8)
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$2,881
B) Delay Capital & One-Time Costs	$2,241
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$640
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$898**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$3,000
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 14(9580-9)
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$3,841
B) Delay Capital & One-Time Costs	$2,988
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$853
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$1,196**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$4,000
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Ct 14(9580-10)
Present Values as of Noncompliance Date (NCD),	01-Aug-1995
A) On-Time Capital & One-Time Costs	$7,202
B) Delay Capital & One-Time Costs	$5,603
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$1,599
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$2,244**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.8%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$7,500
Cost Estimate Date	01-Oct-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00

Run Name =	Count 21
Present Values as of Noncompliance Date (NCD),	01-Jan-1999
A) On-Time Capital & One-Time Costs	$2,932
B) Delay Capital & One-Time Costs	$2,758
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$174
E) Final Econ. Ben. at Penalty Payment Date,	
01-Aug-2001	**$197**
Not-For-Profit, which pays no taxes	
Discount/Compound Rate	5.0%
Discount/Compound Rate Calculated By:	User
Compliance Date	01-Oct-2000
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
# of Replacement Cycles; Useful Life	N/A; N/A
Projected Rate for Future Inflation	N/A
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$3,000
Cost Estimate Date	01-Sep-2000
Cost Index for Inflation	PCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Compliance Capital Investment	
Delay Compliance Capital Investment	
On-Time Compliance Replacement Capital	
Delay Compliance Replacement Capital	
One-Time Compliance Nondepreciable	
Delay Compliance Nondepreciable	

Case = Fort Lewis; Analyst = Melanie Garvey, EPA HQ; 7/27/00